

REMARKS

Prior to entry of this amendment, claims 1-22 are pending in the subject application. Reconsideration of the application is respectfully requested.

Applicants note with appreciation the Examiner's allowance of claims 5-11, and the Examiner's indication that claims 1-4 and 12-22 contain allowable subject matter and would be allowable if amended to overcome the rejections of the claims under 35 U.S.C. § 112, first and second paragraphs.

Claims 1-22 are presented to the Examiner for consideration, of which claims 5-11 are allowed. Claims 1, 5 and 9 are independent.

A. Introduction

In the outstanding Office Action Made Final, the Examiner rejected claims 1-4 and 12-22 under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement; rejected claims 1-4 and 12-22 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention; and indicated claims 1-4 and 12-22 would be allowable if rewritten to overcome the rejections under 35 U.S.C. § 112, first and second paragraphs.

B. Rejections of Claims 1-4 and 12-22 under 35 U.S.C. § 112, First Paragraph

In the outstanding Office Action Made Final, the Examiner rejected claims 1-4 and 12-22 under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. In particular, page 2 of the Office action identifies "the upper region of the first trench substantially corresponding to the upper region of the second trench and the lower region of the first trench substantially corresponding to the lower region of the second trench, and a

material filling the lower region of the first trench being different from a material filling the lower region of the second trench” language of claim 1 as forming the basis of the rejection. The rejection is respectfully traversed for at least the following reasons.

Applicants removed the “upper region of the first trench substantially corresponding to the upper region of the second trench and the lower region of the first trench substantially corresponding to the lower region of the second trench” language of claim 1 responsive to the rejection.

Applicants submit that the “a material filling the lower region of the first trench being different from a material filling the lower region of the second trench” language of claim 1 is clear and unambiguous, and is supported, e.g., at least in paragraphs [0038]-[0039], [0053]-[0057] and FIGS. 10 and 11 of applicants’ originally filed specification.

More particularly, e.g., as shown in FIG. 10 of applicants’ originally filed specification, in embodiments of the subject matter recited in claim 1, the first trench 131 includes a lower region filled with a lower isolation pattern 164 material and an upper region filled with an upper isolation pattern 170 material, and the second trench 132 includes a lower region and an upper region that are both filled with the upper isolation pattern 170 material. However, embodiments of the subject matter recited in claim 1 are not limited to formation of such a structure and may, e.g., form the structure illustrated in FIG. 11 of applicants’ originally filed specification.

In the exemplary embodiment illustrated in FIG. 11, the first trench 131 includes a lower region filled with a lower isolation pattern 164 material and an upper region filled with an upper isolation pattern 170 material, and the second trench 132 includes an upper region filled with the upper isolation pattern 170 material, and a lower region, that generally corresponds to the lower region of the first trench 131, which is filled with the lower isolation pattern 162 material and the

upper isolation pattern 170 material. Thus, in such embodiments, e.g., the upper isolation pattern 170 material fills a portion of the lower region of the second trench 132 and the upper region of the second trench 132. Thus, the lower region of the second trench 132 is at least partially filled with a material, e.g., the upper isolation layer 170, which is different from the lower isolation pattern 164 material filling the lower region of the first trench 131. As described in paragraph [0038] of applicants' originally filed specification, such embodiments may be formed, e.g., by maintaining some of a lower isolation layer 162 that may be deposited prior to formation of the upper isolation pattern 170, as it is not necessary to completely remove such a lower isolation layer 162 of the second trench 132.

For at least these reasons, applicants submit that: (1) claim 1 is clear and unambiguous; (2) persons of ordinary skill in the art at the time of the invention would appreciate the scope and features of claim 1; and (3) the subject matter of claim 1 is supported at least by paragraphs [0038]-[0039], [0053]-[0057] and FIGS. 10 and 11 of applicants' originally filed specification. It is respectfully requested that the rejection be withdrawn.

C. Asserted Indefiniteness Rejections of Claims 1-4 and 12-22

In the outstanding Office Action Made Final, the Examiner rejected claims 1-4 and 12-22 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention. Page 2 of the Office action identifies "the upper region of the first trench substantially corresponding to the upper region of the second trench and the lower region of the first trench substantially corresponding to the lower region of the second trench" language of claim 1 as being vague because the specification does not describe what substantially corresponding means. As

discussed above, applicants amended claim 1 to remove this language responsive to the rejection.

For at least these reasons, it is respectfully requested that the rejection be withdrawn.

D. Allowable Subject Matter

Applicants appreciate the allowance of claims 5-11 and the Examiner's indication of allowable subject matter in claims 1-4 and 12-22. As discussed above, applicants amended independent claim 1 to remove the language forming the basis of the rejection of claims 1-4 and 12-22 under 35 U.S.C. § 112, first and second paragraphs. For at least these reasons, applicants submit that all pending claims are allowable.

E. Request Entry of Amendment

Applicants respectfully request that this amendment be entered at least because the amendment: (1) only amends independent claim 1 responsive to rejections under 35 U.S.C. § 112, first and second paragraphs in the outstanding Office action; (2) does not remove limitations relied upon by the applicants or by the Examiner as defining the present invention over the applied art; (3) does not add any new claims; and (4) places the claims in condition for allowance and/or in better form for appeal. Entry of the amendment is respectfully requested.

F. Conclusion

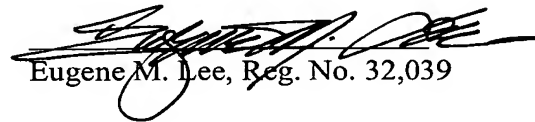
If the Examiner believes that additional discussions or information might advance the prosecution of the instant application, the Examiner is invited to contact the undersigned at the telephone number listed below to expedite resolution of any outstanding issues.

In view of the foregoing amendments and remarks, reconsideration of this application is earnestly solicited, and an early and favorable further action upon all the claims is hereby requested.

Respectfully submitted,

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PETITION and
DEPOSIT ACCOUNT CHARGE AUTHORIZATION

This document and any concurrently filed papers are believed to be timely. Should any extension of the term be required, applicant hereby petitions the Director for such extension and requests that any applicable petition fee be charged to Deposit Account No. 50-1645.

If fee payment is enclosed, this amount is believed to be correct. However, the Director is hereby authorized to charge any deficiency or credit any overpayment to Deposit Account No. 50-1645.

Any additional fee(s) necessary to effect the proper and timely filing of the accompanying-papers may also be charged to Deposit Account No. 50-1645.